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in the tubing hanger and a corresponding external service and control line. Consequently, the need to make these connections individually or radially through the tubing spool 12 is eliminated. In addition, the controls bridge may include one or more closure members for controlling flow through respective bridge lines, thereby eliminating the need to include these closure members on the tubing spool 12 or in the tubing hanger 16. Additionally, the controls bridge 20 is preferably sufficiently lightweight to be installed and retrieved using an ROV.

1  
[ follows:

2  
In accordance with a preferred embodiment of the invention, the first closure member 44 is preferably an internal gate valve which is similar to that disclosed in applicants' co-pending U.S. Patent Application No. 09/815,436, which is hereby incorporated herein by reference. Referring to Figures 6 – 8, the gate valve 44 is unique in that substantially all of its operational components are housed entirely within the body 34 of the tubing hanger 16. In addition, the gate valve 44 is oriented generally axially so as to occupy a minimum of the radial cross sectional area of the tubing hanger 16. In order to most readily accommodate this vertical orientation of the gate valve 44, the annulus bore preferably includes a lateral branch which is connected to a longitudinal branch, and the gate valve is disposed across the lateral branch. For example, in Figures 7 and 8 the annulus bore 42 is shown to comprise an upper branch 184 which

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B2  
extends generally axially through the body 34 to the top of the tubing hanger 16, a lower branch 186 which extends generally axially through the body to the bottom of the tubing hanger, and an intermediate branch 188 which extends generally laterally between the upper and lower branches. To facilitate the formation of the annulus bore 42, the intermediate branch 188 is ideally machined into the outer wall 36 and then sealed by a plug member 190 or any other suitable means.

[ Please amend the paragraph beginning on line 18 of page 27 to read as follows:

B3  
As an alternative to the closure member 46, the flow completion system 10 may comprise a simple debris valve which is mounted in the top of the upper branch 184 to prevent debris from falling into the annulus bore when the tubing hanger running tool is removed from the tubing hanger but allow fluid to pass through the upper branch when the annulus bore is connected to an external conduit, such as an external service and control line. The construction and operation of the debris valve are explained more fully in applicants' co-pending U.S. Patent Application No. 09/815,436.

[ Please amend the paragraph beginning on line 17 of page 30 to read as follows:

B4  
In order to provide an effective barrier between the well bore and the environment, the tubing hanger 16 preferably includes one of the aforementioned closure members to control the flow through each service

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BG and control conduit 182 that extends completely through the tubing hanger to other than a down hole valve. The closure member will therefore act as an initial barrier between the well bore and the environment through the service and control conduit. This barrier is in addition to the barrier which is provided by a conventional fluid coupling that is typically installed in the service and control conduit. As is known in the art, the conventional fluid coupling includes a poppet-type valve which will close when the coupling is disengaged from a corresponding coupling that is installed in a tubing hanger running tool, a controls bridge or a radial penetrator. As an alternative to employing an individual closure member in each service and control conduit 182, the flow completion assembly 10 may comprise a multiport gate valve assembly to control the flow through a number of service and control conduits simultaneously. Such a gate valve assembly, which is shown as 318 in Figure 1, is described in applicants' co-pending U.S. Patent Application No. 09/815,395, which is hereby incorporated herein by reference. With closure members such as the above in place in the service and control conduits 182, the tubing spool 16 will contain both of the industry required first and second barriers between the well bore and the environment.

BG [ Please amend the paragraph beginning on line 1 of page 33 to read as follows:

In addition, as shown schematically in Figure 14, one or more of the service and control conduits 182 which is connected to a radial penetrator

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coupling 424 may be routed within the body 34 of the tubing hanger 16 to a corresponding axial service and control conduit 182 that enters from the top of the tubing hanger. In this manner, a device with which a tubing hanger running tool communicates during installation of the tubing hanger 16, for example a surface controlled subsea safety valve ("SCSSV"), can be monitored during installation of the tubing hanger and then connected to an external service and control line through the radial penetrator once the running tool is disconnected from the tubing hanger. A conventional poppet-type fluid coupling may be installed in each vertical service and control conduit 182 to seal the conduit once the running tool is disconnected. Alternatively, a fluid coupling 426 which comprising both a poppet valve and a gate valve may be employed in each such service and control conduit. Such a coupling, which is described more fully in applicants' co-pending U.S. Patent Application No. 09/844,579, which is hereby incorporated herein by reference, will provide two barriers between the well bore and the environment through the service and control conduit.

In the Claims:

Please cancel claims 1-12, 14 and 21, without prejudice.

Please amend claims 13, 15, 17 and 19 to read as follows:

11 ~~8~~ (Amended). A flow completion system for controlling the flow of fluid from a well bore, the flow completion system comprising:  
a tubing spool which includes a central bore that extends axially therethrough and a production outlet which communicates with the central bore;